

## #49 Grodzisz po raz drugi

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **18**
- SRM **2.4**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **11.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3.5 kg (92.1%)	80 %	3
Grain	Weyermann - Carapils	0.3 kg (7.9%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	30 g	60 min	5.1 %
Aroma (end of boil)	East Kent Goldings	20 g	1 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52	Ale	Slant	150 ml	---

### Extras

Type	Name	Amount	Use for	Time
Finning	whirlfloc - pół tabsa	1 g	Boil	5 min